ABSTRACT

The present invention provides a method for driving a piezoelectric ink jet head that surely suppresses the ensuing vibration of the drive section while suppressing the flying speed of the ink droplet from decreasing, by setting the time constant τ_{UP} of rise of voltage when the drive voltage is applied and/or the time constant τ_{DN} of fall of voltage when stopping the application of the drive voltage are set in ranges that satisfy the relations of the expressions (i) and (ii):

$$Ta/(-\ln 0.01) \leqq \tau_{UP} \leqq Ta/(-\ln 0.25) \quad \text{(i)}$$

$$Ta/(-\ln 0.01) \leqq \tau_{DN} \leqq Ta/(-\ln 0.25) \quad \text{(ii)}$$

with respect to the period Ta of the ensuing vibration of the drive section, or pulse width T_3 of the drive voltage is set at an integral multiple of the period Ta of the ensuing vibration of the drive section.